CHAPTER X. RECOMMENDATIONS

The ultimate goal of the Infant Mortality Review is developing recommendations to improve the health of mothers and infants. This chapter is a compilation of all the recommendations contained throughout this report. They were developed by the Review and incorporate the comments we solicited from community agencies and providers. While this compilation may be a useful summary, it lacks the context of the cases in which recommendations were developed. In order to more fully understand them, the reader should consult the chapter referenced in each section.

INFANT SAFETY (CHAPTERS VI AND VII)

Infant safety is a key approach to preventing unintentional injuries. Unintentional injuries, while comprising a small proportion of all infant deaths in King County, are usually preventable. Since babies under 1 year of age have limited mobility, hazards in the surrounding environment are usually responsible. One of the most important environments affecting the well being of infants is their sleep location, since they spend so much time sleeping.

SLEEP SAFETY RECOMMENDATIONS (CHAPTER VI)

- Every baby needs a safe place to sleep, every time it goes to sleep, no matter where or when. This includes naps during the day as well as nighttime sleeping. Infants should have a crib to sleep in which is in good repair with a firm mattress. No soft bedding such as fluffy comforters, sheepskins or pillows should be under the baby or in the crib. The number of objects in the crib should be limited.
- Infants should avoid sleeping in the prone (on the stomach) position. It is safer for babies to sleep on the side or back. This includes naps as well as night time sleeping.
- Infants should not sleep on beds, couches, and other places not designed for infant sleep safety. Additionally, sleeping on couches with multiple individuals is to be avoided.
- Rocking cradles are potentially dangerous, particularly those that may have defective mechanisms for stabilizing the cradle.
- Day care and foster care facilities should provide a safe sleeping environment for each infant at all times.
- Baby-sitters should be aware of safe sleeping practices for infants.

OTHER SAFETY RECOMMENDATIONS (CHAPTER VII)

- Plastic bags should be out of the reach of infants at all times.
- Window blind cords should be out of reach of infants at all times and cords should have no loops.
- An approved infant car seat should be used at all times when transporting the baby by car. We support the current Washington State law that requires that infants be placed in car seats when in a vehicle.

SUPPORT SERVICES (CHAPTER VIII)

Ideally, all women with medical and/or psychosocial risks should have early, consistent prenatal care. This care should include outreach, maternity screening and arrangements for appropriate and available medical care. It should also utilize interdisciplinary support services, including nursing, nutrition, social work, CPS and on-going coordinated case management. Referral to other community resources and health education such as childbirth classes should also be available. Tracking of pregnant and parenting women should be available as needed to assure follow-up on failed appointments and coordination between service providers. Comprehensive and standardized screening and treatment for substance abuse should be the norm for all pregnant women. Infants at risk of abuse or neglect should be promptly identified, assessed and assured a safe and nurturing home. All providers, including emergency first responders, should offer sensitive and compassionate care to the families of infants who have died.

To attain these service objectives, the Review developed recommendations to improve the quality of support services for pregnant women and infants.

PUBLIC HEALTH NURSING (CHAPTER VIII)

Providing services to the high risk families described in the report is challenging. For most of the cases considered by the Review, Public Health Nursing (PHN) services were not identified as a problem. Among some high risk cases, however, we found several areas for improvement of services. Issues identified related to PHN included lack of referral for nursing services by other agencies and providers and difficulty in locating referred families, lack of timely PHN follow-up with family for services, poor documentation of services, and problems with coordination with other agencies.

PUBLIC HEALTH NURSING RECOMMENDATIONS

- Identify high risk women before and during pregnancy, including women with no other children, for referral to support services prior to delivery of the infant.
- Meet with providers and agencies to promote better understanding of public health nursing and how to make referrals.
- Improve the referral process with options such as electronic transfer of referral, single phone number for all referrals, and/or secure fax machines.
- Encourage providers to make a public health nurse referral for women and infants when:
  - A referral to CPS is made or when CPS is involved.
  - For women with mental health, substance abuse, or homelessness problems
  - For pregnant women being released from incarceration
  - For those who have had no prenatal care
- Increase capacity within the Health Department to consistently respond to referrals in a timely manner and to provide service for sufficient periods of time to monitor each infant's well-being.
- Create a mechanism for internal Health Department review of infant deaths where coordination of care problems have been identified to promote region-specific problem solving.

OTHER PUBLIC HEALTH AND COMMUNITY SERVICES (CHAPTER VIII)

A broad range of community health care and support services of pregnant and parenting women and infants are offered through a complex, interrelated system of public and private agencies and hospitals. Providers of support services have an opportunity to provide needed referrals for services but sometimes miss opportunities to do so. Additionally some women may not have used services offered to them. Services that were needed but not received included WIC (a nutrition program for Women, Infants and Children), prenatal care and other health and social services. Lack of coordination between services and lack of referrals between agencies were also identified as issues.

OTHER PUBLIC HEALTH AND COMMUNITY SERVICES RECOMMENDATIONS

- Every pregnant woman should receive early and continuous prenatal care.
- Ensure that all community health and social service providers are familiar with the range of support services available for pregnant and parenting women, are prepared to make appropriate referrals, and assist the client by motivating and facilitating their use of these services.
- Develop innovative methods for motivating high risk women to seek available services for pregnancy and infant care and for making those services more accessible and acceptable to high risk families. Examples of incentives could include gifts, money, gift certificates, assistance with childcare, transportation, and convenient evening hours for services
- Improve inter-agency communication. Provide coordination of care for pregnant and parenting women who need multiple service providers by linking these women with a case manager and community outreach services. These services should assist with setting service priorities and tracking client response to various referrals and services.
- Increase awareness among women of childbearing age and providers who serve them concerning availability of food and nutrition programs for pregnant women and infants.
- Address legal barriers which inhibit exchange of information between prenatal care providers on the one hand and drug and alcohol treatment and mental health providers serving pregnant women on the other.

CHILD PROTECTIVE SERVICES (CHAPTER VII)

Child Protective Services (CPS) is the agency designated to deal with the assessment and management of suspected and actual child abuse and neglect. The agency faces considerable challenges in dealing with these cases and the Review identified several areas where services might be improved. These included barriers to early referral, lack of capacity to monitor contracts made with clients, problems monitoring cases, problems with infant removal from an unsafe home, premature return of infant to unsafe conditions, and administrative concerns.

CHILD PROTECTIVE SERVICES RECOMMENDATIONS

- Increase capacity within Child Protective Services to consistently respond to referrals in a timely manner and to keep families open to service for sufficient periods of time. This will allow workers to adequately monitor infant well-being so that intervention may be made when necessary.
- Assign a high priority to referrals made by mandated reporters and establish strong communication links with those providers through both regular and case-specific interaction.
- Educate providers about the mechanism for review and mediation of cases when agencies and providers involved do not agree with the disposition of the case by CPS. (Progress Note: In place now is an appeals system consisting first of the child protective team, then up the chain of supervision in the agency. A 1-800 notification telephone number is also available.)

- Continue to improve tracking of families within CPS to clarify which worker is accountable and facilitate monitoring of cases by CPS supervisors.
- Increase accountability within the agency by implementing review by supervisors of individual worker's decisions, family progress and outcomes. (Progress Note: A manual is in development which includes legal citations and grids on shared decision making by workers or supervisors. Also, there is now a quality assurance unit in each division)
- Improve tracking of families across the various programs and sites within DSHS (Foster Care, Family Reconciliation Services) so CPS can be informed when a family known to the agency has had another child or is experiencing family distress.
- Improve community-wide tracking and communication so that families with children at risk are followed across agencies. Develop electronic tracking capabilities.
- Focus on primary prevention of child injury by broadening the conditions under which children receive CPS services and interventions.
- Expand the Alternate Response System to all of King County. This program serves families at low risk for child abuse who are referred to CPS. PHN services, transportation, childcare, parenting education, counseling and emergency assistance are available.
- Review the agency policy of using voluntary service plans with substance abusing parents. (Voluntary Service Plan :A written plan drafted by CPS worker and signed by parent; dependent on voluntarily cooperation.)
- Implement review of all deaths among infants in CPS and CWS care to identify problems and take subsequent remedial action. (Note: Child Death Reviews are now mandated by state law SHB 1035.)
- CPS should evaluate cases for substance abuse and consult with substance abuse professionals when designing a case management plan.
- In cases where decisions concerning custody of children are being made, limit dependency status (custody of children by DSHS) to the date of the 6 month court hearing. If parents have not met the conditions of the order by that time they will be held accountable.
- Create a dialogue among the Bar Association, health care providers, CPS, and other agencies to promote understanding of CPS services and operations.

JAIL HEALTH SERVICES (CHAPTER VII)

Pregnant and parenting women who are jailed are often at very high risk from the consequences of prostitution, substance abuse or other risky behaviors. Many jail clients are in jail for short stays , making provision of prenatal services or referral for ongoing care difficult. Additionally, some clients may try to conceal their pregnancy.

JAIL HEALTH SERVICES RECOMMENDATIONS

- Provide the patient with a "passport" which contains a brief history of obstetrical data, provider's name and other relevant medical information.
- Increase collaboration between Jail Health Services, the Seattle King County Department of Public Health and Harborview Medical Center Women's Clinic in order to access obstetrical records on shared patients
- Expand outreach programs for clients of Jail Health Services so that outreach workers can expand their services to include alcohol and drug treatment programs (such as MOMS) and establish liaisons with the courts and public health nurses. Currently, Jail Health Services works with outreach workers from Yesler Terrace Clinic to care for prenatal patients.

- Clarify the relationship of Jail Health Services with Child Protective and Child Welfare Services to prevent communication breakdowns. Specify what types of referrals to CPS/CWS are appropriate and what follow-up action can be expected.
- Establish a women's resource center in the jail. Educational materials and group classes are needed on subjects such as domestic violence, parenting and survival skills (food, shelter, legal, medical and job training).
- Obtain a menstrual history on admission to the psychiatric unit to rule out pregnancy for all female inmates housed on the unit. An initial assessment and pregnancy test should be done if indicated and if the patient consents, and a referral should made for obstetrical care. The psychiatric unit admission form should include a brief health history.
- Coordinate County and state agency obstetrical care, mental health and substance programs for pregnant women who have a dual diagnosis of substance abuse. Jail Health Services cares for a number of patients who need mental illness, substance treatment and obstetrical care in an inpatient setting. These women are too ill to care for themselves and are adversely affected by homelessness, drug use and mental illness.

EMERGENCY MEDICAL SERVICES/ FIRST RESPONDERS (CHAPTER VIII)

When an infant dies outside of a hospital, one of several agencies may be the first to arrive to provide assistance and assess the situation. Usually, the first responder is a police officer or an Emergency Medical Services provider. Information gathered at the scene of the death is often essential in determining the cause of the infant death. Several issues were identified with these services including difficulty in locating the scene, inappropriate behavior of responders towards family members, and inconsistent information gathering at the scene of death.

EMERGENCY MEDICAL SERVICES/FIRST RESPONDERS RECOMMENDATIONS

- Require developers to put up street signs as soon as roads are in. Signs must be maintained.
- Develop interagency cooperation to assist the Medical Examiner's Office with gathering information for the scene investigation. This includes coordination of first responder activities with the Medical Examiner on cases in which the cause of death is unknown or appears to be SIDS. In these cases, paramedics and police are called to the scene long before the Medical Examiner's Office is able to conduct the standard scene investigation, which is an essential element in determining the infant's cause of death.
- Provide ongoing training to paramedics responding to infant deaths to assist with completion of appropriate sections of the standardized infant death scene investigation protocol for the Medical Examiner's Office.
- Ensure ongoing training for all first responders (police, firemen, and paramedics) to promote sensitivity regarding issues of personal and family grief related to infant deaths.

SUBSTANCE ABUSE (CHAPTER VIII)

The use of alcohol and illicit substances by pregnant and parenting women put both the mother and infant at risk for health and safety problems. Drug and alcohol screening is not routinely completed for pregnant women and screening for substance abuse is not well understood by many providers and policy makers. Issues identified were inconsistent drug and alcohol screening, lack of resources to meet service needs of substance abusing women, and inadequate CPS monitoring of contracts with substance users.

SUBSTANCE ABUSE RECOMMENDATIONS

- Routine screening by providers should include recognition and documentation of signs and symptoms of substance abuse, a careful history for substance abuse, and monitoring of indicators of substance abuse.
- Standardize protocols for providers on recognition and documentation of substance abuse, including client assessment and toxicology screening for mothers and babies.
- Perform risk assessment on all families where substance abuse is found and refer to CPS as mandated and to public health nursing as appropriate.
- Develop procedures and protocols for CPS contracts for substance abusing women that ensure that they are individualized, enforceable, carefully monitored and evaluated.
- Provide ongoing training for professionals in detection and management of substance abusing clients.
- Expand primary prevention efforts, such as health education, regarding substance abuse.
- Provide additional resources for detection, treatment, and rehabilitation of substance abusing mothers.
- Address legal barriers which inhibit the exchange among prenatal care providers of crucial information concerning patient alcohol and other drug problems

IMPROVING CARE DURING LABOR AND DELIVERY (CHAPTER IX)

Recommendations were developed for improving obstetrical care in King County in four major areas, based on the findings of the Review:

- Maternal transfer and level of delivery facility
- Neonatal care immediately following birth
- Labor and delivery management issues concerning fetal monitoring and possible fetal compromise
- Perinatal infections

MATERNAL TRANSFER & LEVEL OF FACILITY ISSUES (CHAPTER IX)

During the course of complicated labors, it is sometimes in the best interest of the mother and fetus to transfer the mother to a more specialized hospital for more intensive care. Several cases were identified during the Review in which transfer was delayed.

MATERNAL TRANSFER & LEVEL OF FACILITY RECOMMENDATIONS

- Consider transporting a mother in labor promptly if either pediatric or maternal indications for care at a higher level hospital are present.
- Expedite transfer through early communication with staff at the receiving hospital.

NEONATAL CARE ISSUES (CHAPTER IX)

The presence of a pediatric care provider with specialized skills in the care of ill newborns may be important when a sick infant is born. Several infants in the Review did not have the benefit of timely care from a pediatric care provider or they did not receive adequate resuscitation.

NEONATAL CARE ISSUES RECOMMENDATIONS

- Increase timely communication among obstetrical, pediatric and nursing providers in clinical situations that might require pediatric back-up:
- Emphasize early communication between pediatric and obstetrical care providers
- Increase awareness among staff of the desired time interval between the summoning and arrival of pediatric support for deliveries at each hospital handling deliveries
- Consider using a "quick check list" of medical staff to be notified in case of fetal distress to assure that all members of the team are summoned in a timely fashion. Consider including possible 'back-up' staff who could be notified if a first call provider were unavailable.

LABOR & DELIVERY MANAGEMENT ISSUES- FETAL DISTRESS (CHAPTER IX)

Perinatal asphyxia (suffocation of the fetus during labor and birth) was the cause of death among a number of cases. Asphyxia is usually preceded by fetal distress as the circulation of blood and oxygen to the fetus is compromised. Detection of fetal distress is an important and often challenging issue in labor and delivery management. The review of fifteen cases of perinatal asphyxia raised three main concerns:

- Delay in response to indications of fetal compromise during labor
- Delay in notification of obstetrical providers by nursing staff of an abnormal fetal heart tracing
- Lack of documentation of interpretation of fetal status during labor and of care provided in response to indications of fetal distress.

LABOR AND DELIVERY MANAGEMENT ISSUES- FETAL DISTRESS RECOMMENDATIONS

The following measures were made to improve outcomes for distressed fetuses during labor and delivery:

- Increase efforts that will assure thorough communication among the team of providers that cares for women during labor and delivery. In these cases described above, there were several areas where communication appeared to breakdown:
  - ♦ Among staff during transfer of care and change of shift
  - ♦ Between nurses and obstetrical providers during labor regarding the fetal heart strips
  - ♦ Between pediatric and obstetrical care providers during complicated labors
- Encourage hospitals and birth centers to adopt standardized guidelines or establish institution-specific guidelines, if they have not already done so, for:
  - ♦ Nursing staff to contact obstetrical care providers regarding fetal heart strips
  - ♦ Obstetrical providers to contact obstetrical and pediatric back-up as appropriate
- Promote regular professional education about fetal monitoring, signs of fetal compromise and methods of fetal assessment and resuscitation during labor by encouraging hospitals, birth centers and professional associations to provide obstetrical providers and nursing staff with continuing education and updated guidelines.

- Encourage hospitals and birth centers to concentrate quality improvement programs on:
  - ♦ Adequate communication among providers during labor and delivery

  - ♦ Fetal monitoring guidelines for both nurses and obstetrical care providers
  - ♦ Adequate documentation of care provided by nursing and obstetrical providers during labor
- Increase efforts by providers to educate pregnant women about the signs and symptoms of fetal compromise such as lack of fetal movement.

INFANT DEATHS CAUSED BY INFECTIONS(CHAPTER IX)
Perinatal infections were noted as the underlying cause of death in several cases. Issues with detection and treatment of infections varied according to the causative organism. Recommendations were made separately for each of the following types of infection.

RECOMMENDATIONS FOR HERPES SIMPLEX VIRUS INFECTION (HSV)
Recognition and management of maternal and neonatal HSV infections is difficult and guidelines are changing. Primary HSV infection should be considered as a possible cause of maternal fever occurring at or near the onset of labor, particularly if no other cause for the fever is identified (including negative amniotic fluid cultures) and the peripheral white blood cell count is low or normal.

For all patients in whom HSV infection is suspected, the following are recommended:

- Careful labial and cervical exam to identify lesions
- Genital HSV cultures using an appropriately "vigorous" technique to obtain samples in order to avoid false negative results
- Notification of the pediatric care provider of the suspicion of maternal HSV infection and of the presence of a maternal genital HSV culture

RECOMMENDATIONS TO PREVENT NEONATAL GROUP B STREP INFECTION (GBS)
Because management of GBS infection remains an area of controversy, one specific strategy for prevention of neonatal GBS disease cannot be recommended. It is strongly recommend that providers consider the following:

- In-depth discussion with patients concerning the issues involved in screening and prophylaxis of GBS
- Treatment of all patients with risk factors, regardless of GBS status.
- Treatment of all mothers with positive GBS cultures, regardless of gestational age or other risk factors.
- Adoption and adherence to site-specific screening protocols by all providers. Factors to consider in developing such protocols include:
  - ♦ Using selective media cultures and obtaining simultaneous vaginal and rectal specimens when screening cultures are performed
  - ♦ Formalizing a system for communicating both pending cultures and culture results to labor and delivery staff and all other providers involved in caring for the mother and newborn
  - ♦ Establishing a system to verify that treatment has been carried out for all positive cultures.